

Work Order ID 124258

September-11-14 12:00:15 PM

124258

Page 1

Item ID: 646.3301

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Upper Cutter Assy

Stop ***NS2***

Start Date: 9/10/14 Start Qty: 2.00

2

Cust Item ID:

Required Date: 9/10/14 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: MLS Date: 14-09-16

Tooling:

Date:

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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646.3300	N/C
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110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

2DAS
41

9-89

14-12-15

120

0.00

120

Small Fab

Memo

0.00

Small Fab

2DAS
41

9-89

14-12-15

ONE fastener must be install finger-tight (see note 9)

Assemble as per dwg and apply loctite 598 on all faying surfaces shown on dwg per note 7.

A/R RTV LOCTITE 598: 125032
exp. date: 5/15

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124258

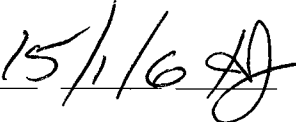
124258

Page 2

September-11-14 12:00:15 PM

Item ID: 646.3301 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Upper Cutter Assy
 Start Date: 9/10/14 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 9/10/14 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00						9 9-89	DEC 2 2 2014
140 *140* Packaging Packaging	Identify as per dwg & Stock Location <u>CK 40</u> Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***	0.00 0.00				2		DAS 06 9-89	JAN 0 6 2015
150 *150* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							15/1/6   15-1-6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Handling/Pre.									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Picklist Print

September-11-14 12:00:14 PM

Page 1

Work Order ID: 124258

124258

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assy

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3310 *646.3310* LH Half		Manufactured	No			110	Each	16.0000	1	2		DAS 41 9-89	14-12-9

Location	Loc Qty	Loc Code
MF	16	
120486	6	
121853	10	

2

646.3311 *646.3311* RH Half		Manufactured	No			110	Each	13.0000	1	2		DAS 41 9-89	14-12-9
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Location	Loc Qty	Loc Code
MF	13	
100844	4	
102840	1	
107606	6	
108423	2	

2

646.3312 *646.3312* Center Plate		Manufactured	No			110	Each	17.0000	1	2		DAS 41 9-89	14-12-9
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Location	Loc Qty	Loc Code
MF	17	
103083	1	
121184	6	
121871	10	

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

September-11-14 12:00:14 PM

Page 2

Work Order ID: 124258

124258

Parent Item: 646.3301

646 3301

Parent Item Name: Upper Cutter Assy

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 2.00

Required Qty: 2.00

646.3313

Manufactured No

110 Each

9.0000

1 2

DAS

646 3313

Upper Guide

41

9-89

14-12-9

122971

2

Location

Loc Qty

Loc Code

MF

9

106094

2

109917

7

646.3314

Manufactured No

110 Each

21.0000

1 2

DAS

646 3314

Blade

41

9-89

14-12-9

Location

Loc Qty

Loc Code

MF

21

108506

1

119832

20

2

646.3315

Manufactured No

110 Each

25.0000

1 2

DAS

646 3315

Blade

41

9-89

14-12-9

Location

Loc Qty

Loc Code

MF

25

120676

13

123095

12

2

646.3316

Manufactured No

110 Each

11.0000

1 2

DAS

646 3316

Blade

41

9-89

14-12-15

125205

2

Location

Loc Qty

Loc Code

MF

11

103515

2

116486

3

122975

6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

September-11-14 12:00:14 PM

Page 3

Work Order ID: 124258

124258

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assy

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 2.00

Required Qty: 2.00

NAS1149FN832P

Purchased

No

110

Each

5,895.000

36

72

DAS

NAS1149FN832P

Washer

**

41

9-89

14-12-15

Location

Loc Qty

Loc Code

ST275

5895

123185

30

123522

400

123900

2

125268

5463

72

MS21042L08

Purchased

No

110

Each

3,087.000

18

36

DAS

MS21042L08

Nut

**

41

9-89

14-12-15

Location

Loc Qty

Loc Code

ST306

3087

123900

1

125445

268

m127304

99

m127410

842

m128401

1500

m128429

177

m129541

200

36

NAS1149F0332P

Purchased

No

110

Each

2,287.000

6

12

DAS

NAS1149F0332P

Washer

**

41

9-89

14-12-9

Location

Loc Qty

Loc Code

ST275

2287

122063

205

123900

10

125646

106

m127831

1966

12

September-11-14 12:00:15 PM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Picklist Print

September-11-14 12:00:15 PM

Page 4

Work Order ID: 124258

Parent Item: 646.3301

Parent Item Name: Upper Cutter Assy

124258

646.3301

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 2.00

Required Qty: 2.00

AN3-12A

Purchased

No

110

Each

99.0000

2

4

AN3-12A

Bolt

130566

**

DAS

41

9-89

14-12-9

4

Location

Loc Qty

Loc Code

CA

59

m129682

59

ST349

40

m125709

2

m128398

18

m129507

20

MS21042L3

Purchased

No

110

Each

2,671.000

3

6

MS21042L3

Nut

130799

**

DAS

41

9-89

14-12-9

1

Location

Loc Qty

Loc Code

ST307

2671

123900

934

M127410

11

M127831

41

M128401

42

M128754

1643

MS27039-08-19

Purchased

No

110

Each

715.0000

18

36

MS27039-08-19

Screw

130325

**

DAS

41

9-89

14-12-15

22
14

Location

Loc Qty

Loc Code

ST506

715

124309

25

125654

78

m127904

612

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

September-11-14 12:00:15 PM

Page 5

Work Order ID: 124258

124258

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assy

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 2.00

Required Qty: 2.00

AN3-14A

Purchased

No

110

Each

144.0000

1

2

AN3-14A

Bolt

DAS

41

9-89

14-12-9

Location

Loc Qty

Loc Code

ST351

7

m127044

7

ST511

137

~~m127813~~

37

m128813

100

2
2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Offset/Setup									
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Supplier									
Training									
Transport									
Unapproved									

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APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03724

SHEET 1 OF 1

DWG NO. 646.3300

REV: N/C

PREPARED
BY B. PETERS

DATE: 12/05/12

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

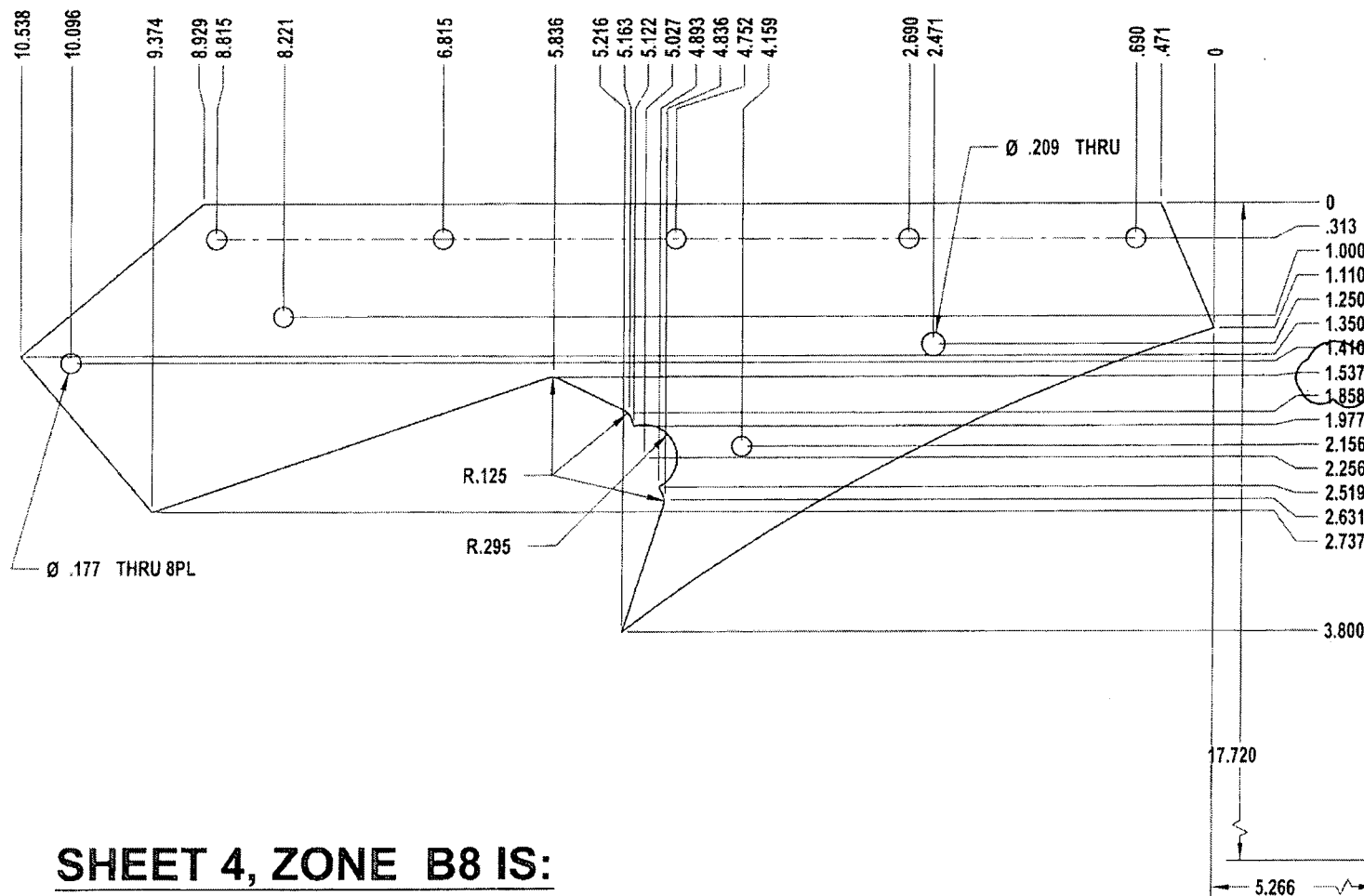
TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON:

REVISED ORDINATE DIMENSION.

ECR:

D-12-025



IS

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 124258 MLJ
14-09-16

SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:

☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

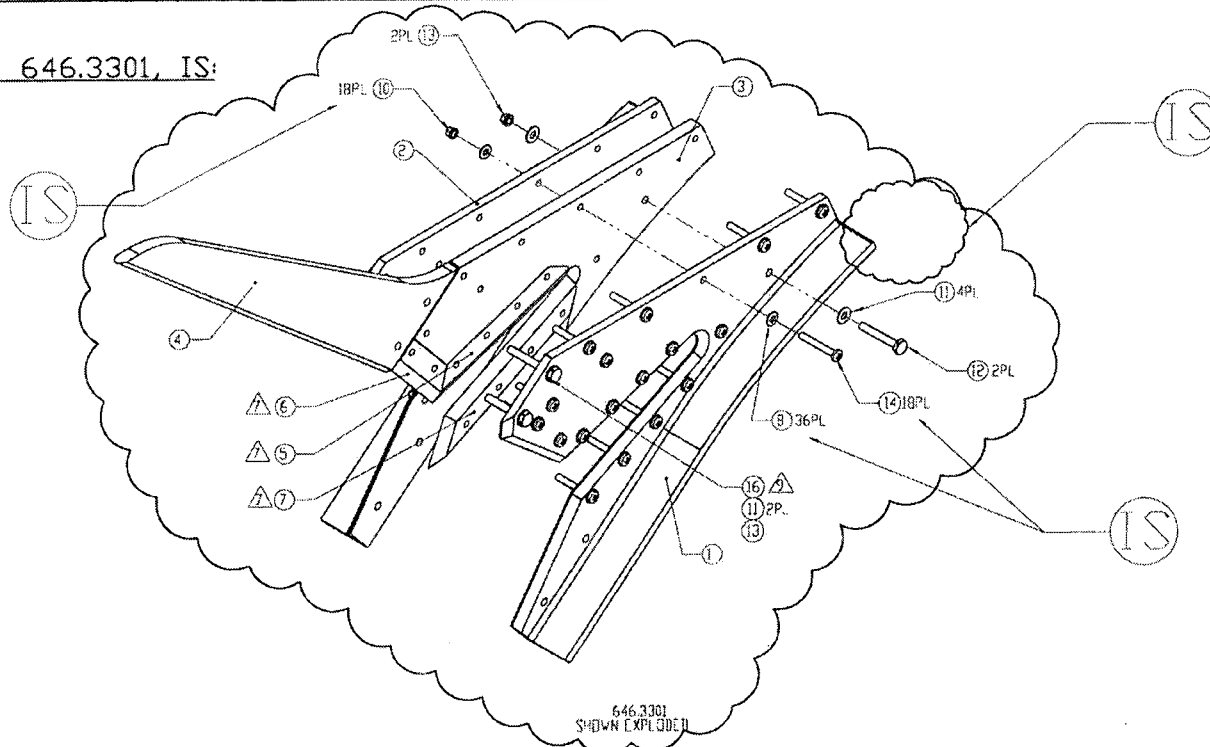
CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

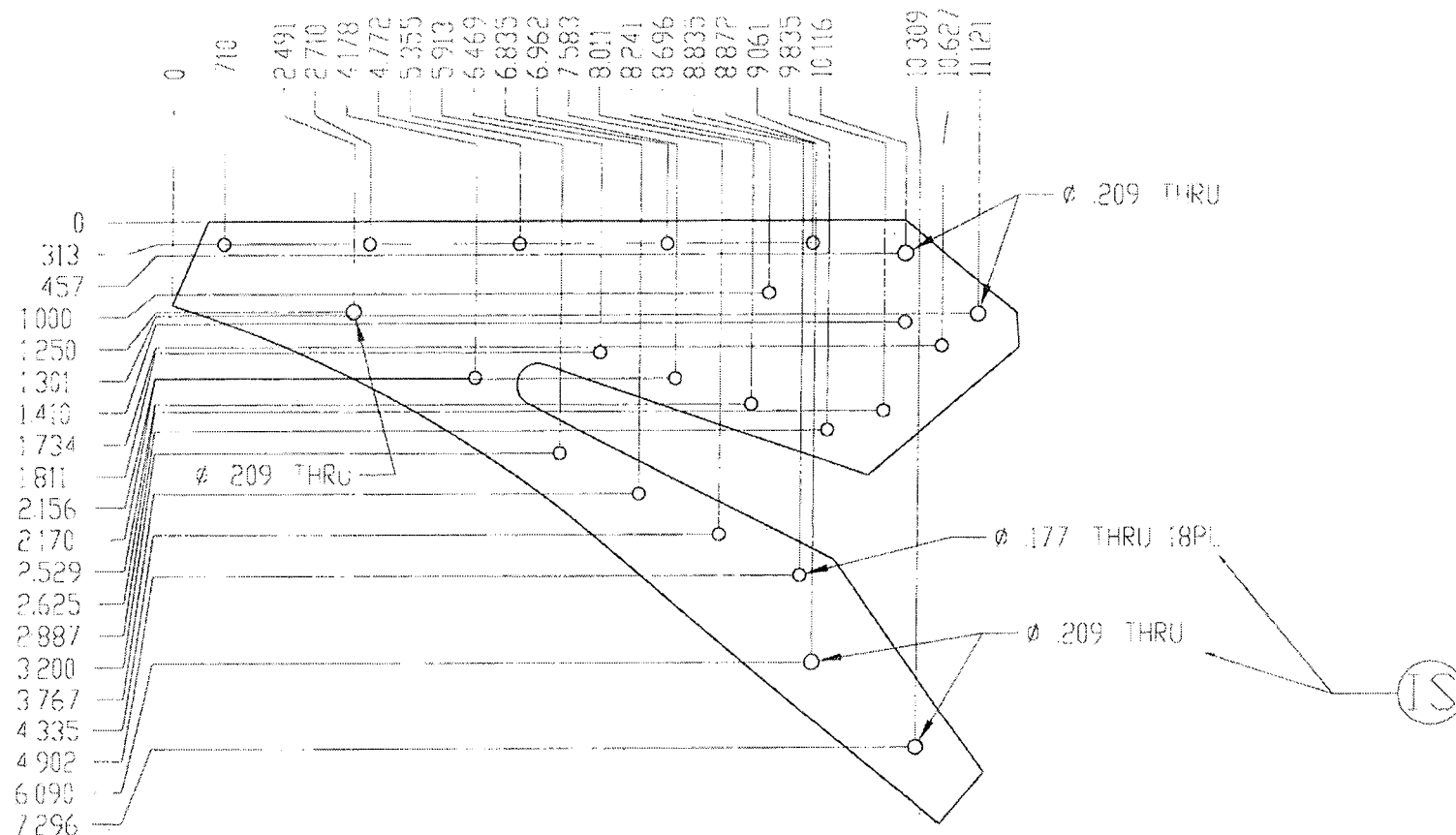
ENGINEERING CHANGE NOTICE NO. 02196		SHEET 1 OF 2	
DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09
DWG TITLE: UPPER CUTTER ASSY		EFFECT ON DWG ☐ INC. ☒ UNINC.	
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS			
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE			

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			3301		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR
				DER REVIEW REQUIRED ☐ YES ☒ NO	

SHEET 3, SECTION VIEW A-A, IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

[illegible]

02196, 03724

① MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12

② FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III,
CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N

③ MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS

4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N

5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED

6. IDENTIFY IAW MPP-120

APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY

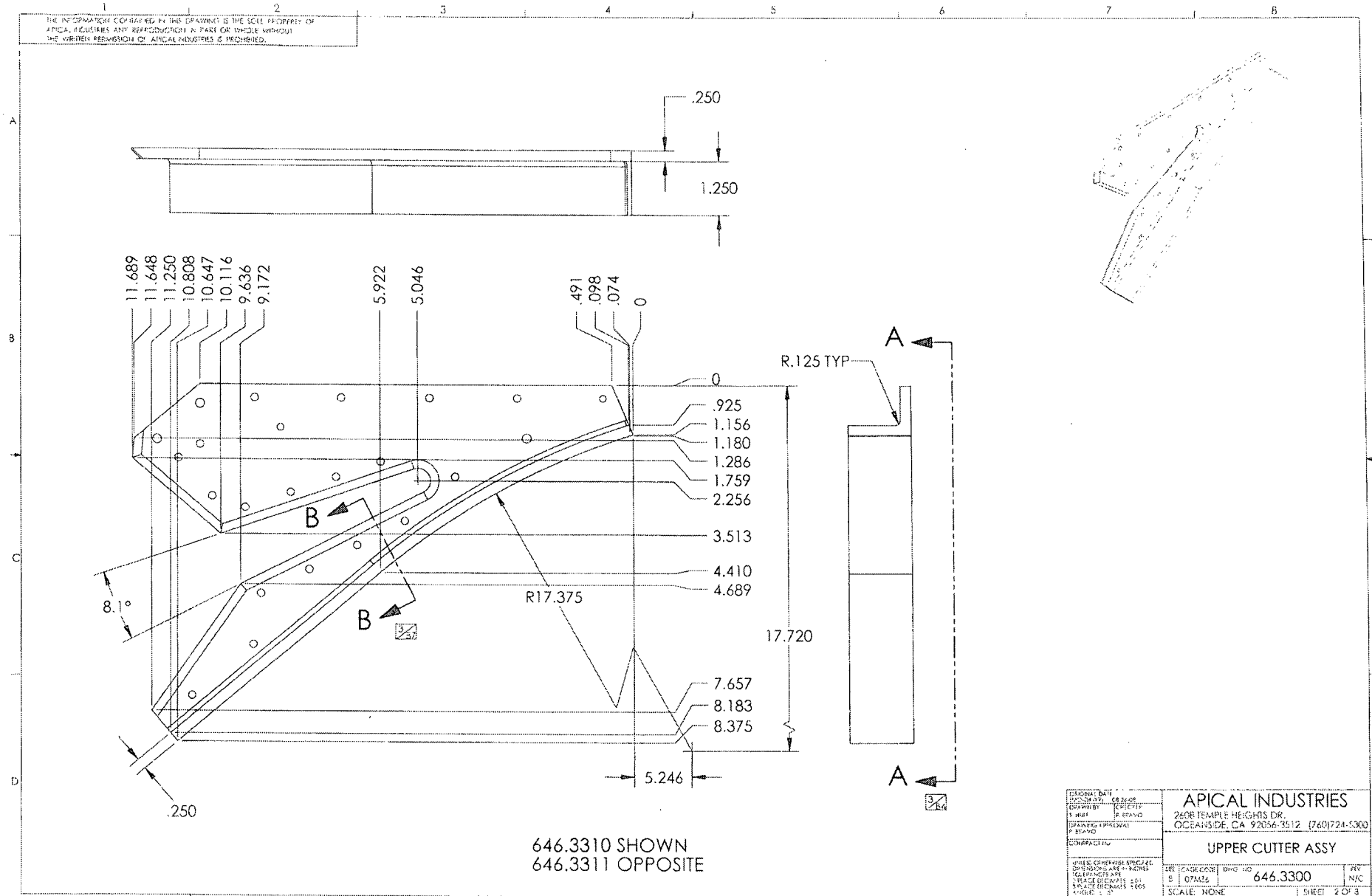
 CUTTING EDGE INTENDED TO BE SHARP. DO NOT BREAK SHARP EDGE

 INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

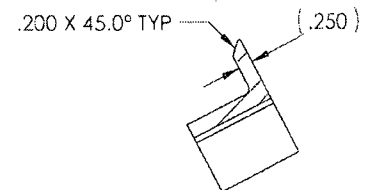
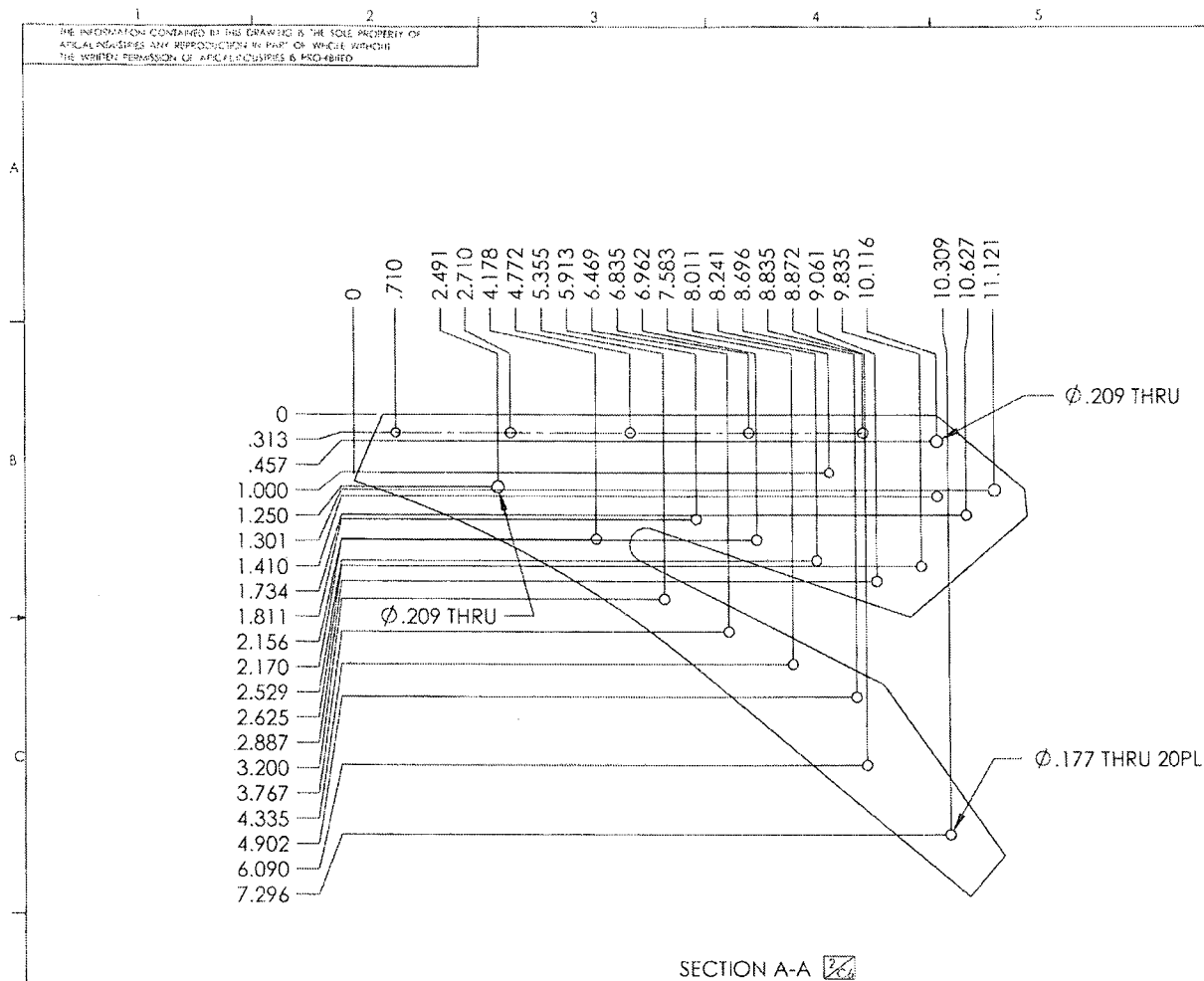
	1	6	601.2834	BOLT	AHS 16A.		
	A/R	15	601.2845	RIV. LOCKTITE 598			
	15	14	601.2765	SCREW	NSS 7039-0818		
	3	13	601.1624	LOCKNUT	MSS126425		
	2	12	601.2763	BOLT	AHS 12B		
	6	11	601.1607	WASHER	MAS13731GSDPP		
	15	10	601.1541	LOCKNUT	NSS 754-2120		
	3	9	601.2766	RIVET	MCS0470AGS-18		
	30	8	601.2764	WASHER	MAS13731GSDPP		
	1	7	646.3316	BLADE			△
	1	6	646.3315	BLADE			△
	1	5	646.3314	BLADE			△
	1	4	646.3313	UPPER GUIDE			△
	1	3	646.3312	CENTER PLATE			△
	1	2	646.3311	RH HALF			△
	1	1	646.3310	LH HALF			△
	X	1	646.3301	UPPER CUTTER ASSY			△
	XX	FIND #	PART #	DESCRIPTION	MAIL	SPEC.	
QTY				PARTS LIST			
NEXT ASSY	IS						
646.4000							

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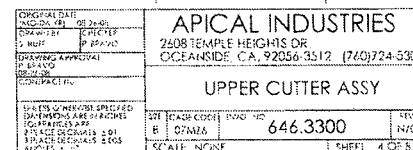
DRAWING DATE: 08/26/08 DESIGNED BY: C. HETTY CHECKED BY: P. BRAND DRAWING APPROVAL: P. BRAND COMMENTS:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300	
DIMENSIONS: GENERAL UNITS ARE IN INCHES DIMENSIONS ARE IN INCHES TOLERANCES ARE: SURFACE FINISH: 125 SURFACE FINISH: 125 ANGLE: 1:1		DWG NO: 646.3300 SCALE: NONE	REV: N/C SHEET: 2 OF 3

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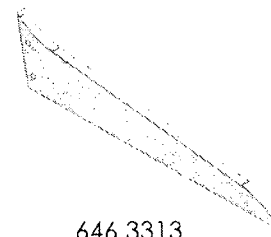
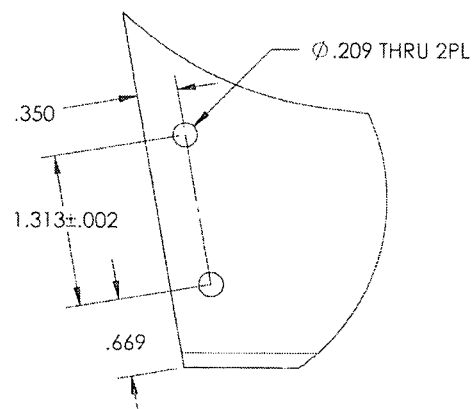
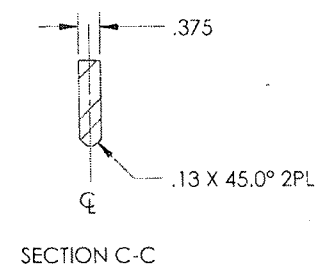
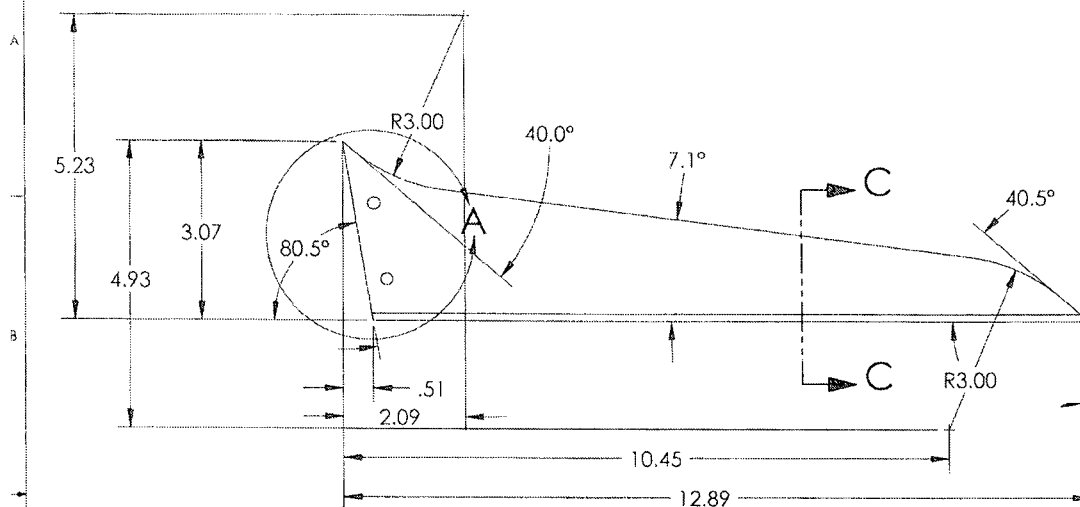
ORIGINAL DATE 10/24/00		APICAL INDUSTRIES	
DESIGNED BY P. BROWN		2408 TEMPLE HEIGHTS DR.	
CHECKED BY P. BROWN		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL		UPPER CUTTER ASSY	
CUSTOMER C/P		REV	REV
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS SPS FRACTIONS DECIMALS SPS ANGLES ± 3°		646.3300	N/C
SCALE: NONE		SHEET 3 OF 8	

REVIEWS			
REV	DESCRIPTION	DATE	APPROVED



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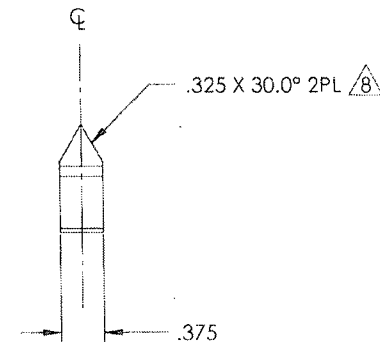
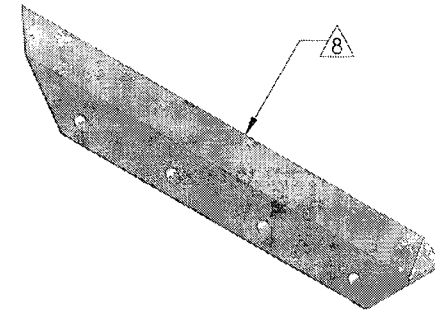
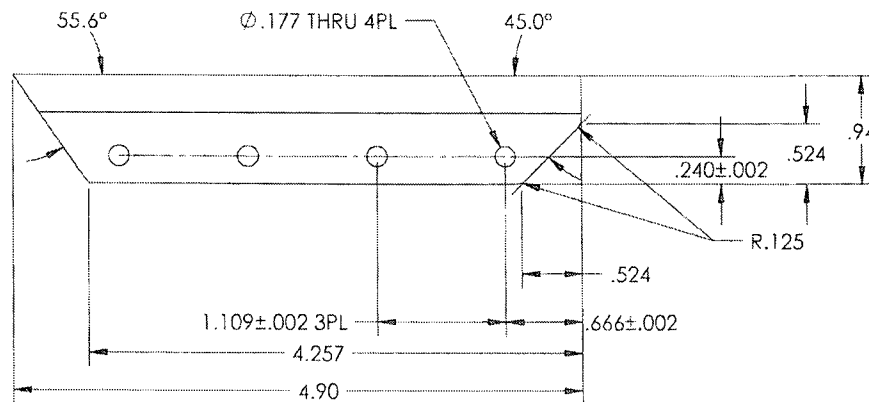
REVISED			
REV	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE: 01/14/10 MODIFIED: 02/14/10 DRAWN BY: J. HART CHECKED BY: J. HART DRAWING APPROVAL: J. HART SCALE: 1:1	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300
	UPPER CUTTER ASSY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS INCHES 1/16 1/32 1/64 1/8 1/4 1/2 3/4 1 1 1/2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 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495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 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2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 265	

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REV	DESCRIPTION	DATE	APPROVED

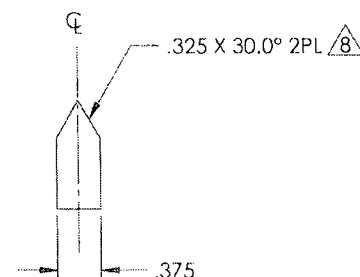
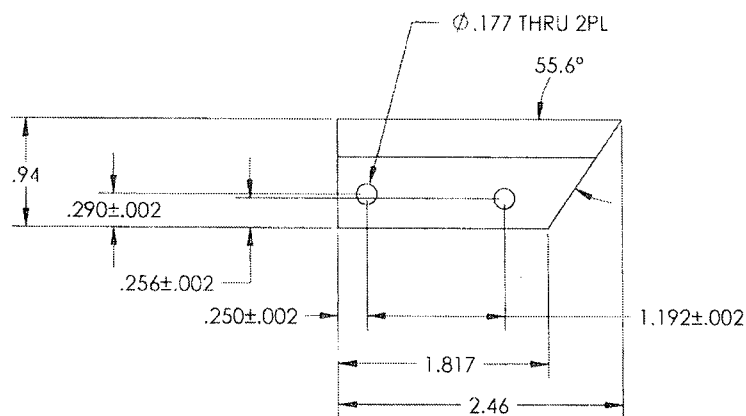
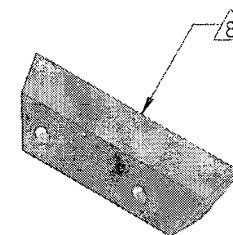


646.3314

ORIGINAL DATE: 08/25/08 DRAWING: 646.3314 15 INCH DRAWING: UNIFORM 1/8 INCH 1/4 INCH 1/2 INCH 3/4 INCH 1 INCH 1 1/2 INCH 2 INCH 3 INCH 4 INCH 6 INCH 12 INCH 24 INCH 36 INCH 48 INCH 60 INCH 72 INCH 84 INCH 96 INCH 108 INCH 120 INCH 144 INCH 168 INCH 192 INCH 216 INCH 240 INCH 264 INCH 288 INCH 312 INCH 336 INCH 360 INCH 384 INCH 408 INCH 432 INCH 456 INCH 480 INCH 504 INCH 528 INCH 552 INCH 576 INCH 600 INCH 624 INCH 648 INCH 672 INCH 696 INCH 720 INCH 744 INCH 768 INCH 792 INCH 816 INCH 840 INCH 864 INCH 888 INCH 912 INCH 936 INCH 960 INCH 984 INCH 1008 INCH 1032 INCH 1056 INCH 1080 INCH 1104 INCH 1128 INCH 1152 INCH 1176 INCH 1200 INCH 1224 INCH 1248 INCH 1272 INCH 1296 INCH 1320 INCH 1344 INCH 1368 INCH 1392 INCH 1416 INCH 1440 INCH 1464 INCH 1488 INCH 1512 INCH 1536 INCH 1560 INCH 1584 INCH 1608 INCH 1632 INCH 1656 INCH 1680 INCH 1704 INCH 1728 INCH 1752 INCH 1776 INCH 1800 INCH 1824 INCH 1848 INCH 1872 INCH 1896 INCH 1920 INCH 1944 INCH 1968 INCH 1992 INCH 2016 INCH 2040 INCH 2064 INCH 2088 INCH 2112 INCH 2136 INCH 2160 INCH 2184 INCH 2208 INCH 2232 INCH 2256 INCH 2280 INCH 2304 INCH 2328 INCH 2352 INCH 2376 INCH 2400 INCH 2424 INCH 2448 INCH 2472 INCH 2496 INCH 2520 INCH 2544 INCH 2568 INCH 2592 INCH 2616 INCH 2640 INCH 2664 INCH 2688 INCH 2712 INCH 2736 INCH 2760 INCH 2784 INCH 2808 INCH 2832 INCH 2856 INCH 2880 INCH 2904 INCH 2928 INCH 2952 INCH 2976 INCH 3000 INCH 3024 INCH 3048 INCH 3072 INCH 3096 INCH 3120 INCH 3144 INCH 3168 INCH 3192 INCH 3216 INCH 3240 INCH 3264 INCH 3288 INCH 3312 INCH 3336 INCH 3360 INCH 3384 INCH 3408 INCH 3432 INCH 3456 INCH 3480 INCH 3504 INCH 3528 INCH 3552 INCH 3576 INCH 3600 INCH 3624 INCH 3648 INCH 3672 INCH 3696 INCH 3720 INCH 3744 INCH 3768 INCH 3792 INCH 3816 INCH 3840 INCH 3864 INCH 3888 INCH 3912 INCH 3936 INCH 3960 INCH 3984 INCH 4008 INCH 4032 INCH 4056 INCH 4080 INCH 4104 INCH 4128 INCH 4152 INCH 4176 INCH 4200 INCH 4224 INCH 4248 INCH 4272 INCH 4296 INCH 4320 INCH 4344 INCH 4368 INCH 4392 INCH 4416 INCH 4440 INCH 4464 INCH 4488 INCH 4512 INCH 4536 INCH 4560 INCH 4584 INCH 4608 INCH 4632 INCH 4656 INCH 4680 INCH 4704 INCH 4728 INCH 4752 INCH 4776 INCH 4800 INCH 4824 INCH 4848 INCH 4872 INCH 4896 INCH 4920 INCH 4944 INCH 4968 INCH 4992 INCH 5016 INCH 5040 INCH 5064 INCH 5088 INCH 5112 INCH 5136 INCH 5160 INCH 5184 INCH 5208 INCH 5232 INCH 5256 INCH 5280 INCH 5304 INCH 5328 INCH 5352 INCH 5376 INCH 5400 INCH 5424 INCH 5448 INCH 5472 INCH 5496 INCH 5520 INCH 5544 INCH 5568 INCH 5592 INCH 5616 INCH 5640 INCH 5664 INCH 5688 INCH 5712 INCH 5736 INCH 5760 INCH 5784 INCH 5808 INCH 5832 INCH 5856 INCH 5880 INCH 5904 INCH 5928 INCH 5952 INCH 5976 INCH 6000 INCH 6024 INCH 6048 INCH 6072 INCH 6096 INCH 6120 INCH 6144 INCH 6168 INCH 6192 INCH 6216 INCH 6240 INCH 6264 INCH 6288 INCH 6312 INCH 6336 INCH 6360 INCH 6384 INCH 6408 INCH 6432 INCH 6456 INCH 6480 INCH 6504 INCH 6528 INCH 6552 INCH 6576 INCH 6600 INCH 6624 INCH 6648 INCH 6672 INCH 6696 INCH 6720 INCH 6744 INCH 6768 INCH 6792 INCH 6816 INCH 6840 INCH 6864 INCH 6888 INCH 6912 INCH 6936 INCH 6960 INCH 6984 INCH 7008 INCH 7032 INCH 7056 INCH 7080 INCH 7104 INCH 7128 INCH 7152 INCH 7176 INCH 7200 INCH 7224 INCH 7248 INCH 7272 INCH 7296 INCH 7320 INCH 7344 INCH 7368 INCH 7392 INCH 7416 INCH 7440 INCH 7464 INCH 7488 INCH 7512 INCH 7536 INCH 7560 INCH 7584 INCH 7608 INCH 7632 INCH 7656 INCH 7680 INCH 7704 INCH 7728 INCH 7752 INCH 7776 INCH 7800 INCH 7824 INCH 7848 INCH 7872 INCH 7896 INCH 7920 INCH 7944 INCH 7968 INCH 7992 INCH 8016 INCH 8040 INCH 8064 INCH 8088 INCH 8112 INCH 8136 INCH 8160 INCH 8184 INCH 8208 INCH 8232 INCH 8256 INCH 8280 INCH 8304 INCH 8328 INCH 8352 INCH 8376 INCH 8400 INCH 8424 INCH 8448 INCH 8472 INCH 8496 INCH 8520 INCH 8544 INCH 8568 INCH 8592 INCH 8616 INCH 8640 INCH 8664 INCH 8688 INCH 8712 INCH 8736 INCH 8760 INCH 8784 INCH 8808 INCH 8832 INCH 8856 INCH 8880 INCH 8904 INCH 8928 INCH 8952 INCH 8976 INCH 9000 INCH 9024 INCH 9048 INCH 9072 INCH 9096 INCH 9120 INCH 9144 INCH 9168 INCH 9192 INCH 9216 INCH 9240 INCH 9264 INCH 9288 INCH 9312 INCH 9336 INCH 9360 INCH 9384 INCH 9408 INCH 9432 INCH 9456 INCH 9480 INCH 9504 INCH 9528 INCH 9552 INCH 9576 INCH 9600 INCH 9624 INCH 9648 INCH 9672 INCH 9696 INCH 9720 INCH 9744 INCH 9768 INCH 9792 INCH 9816 INCH 9840 INCH 9864 INCH 9888 INCH 9912 INCH 9936 INCH 9960 INCH 9984 INCH 10000 INCH		APICAL INDUSTRIES 2808 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
UPPER CUTTER ASSY 646.3300 1/16"		SCALE: 1/16"=1"	
SHEET 6 OF 8		646.3314	

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REV	DESCRIPTION	DATE	BY/REVISED

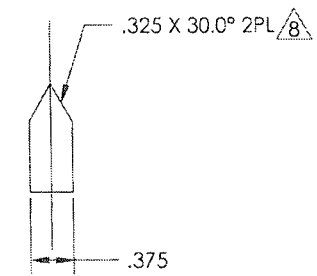
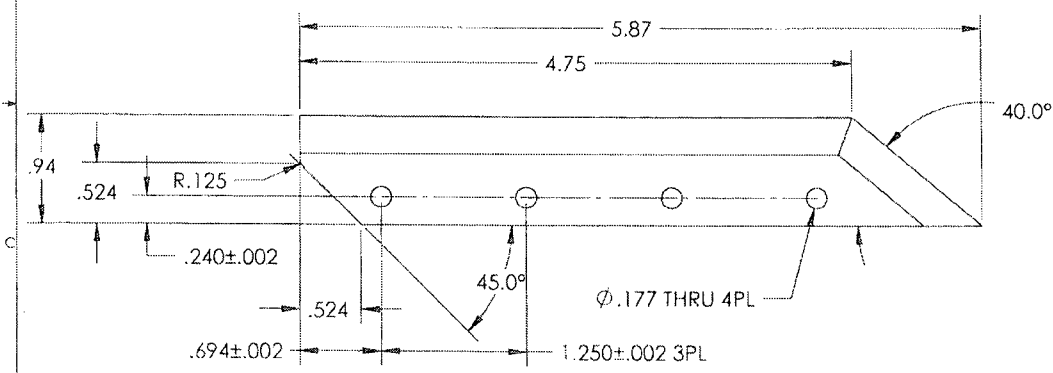
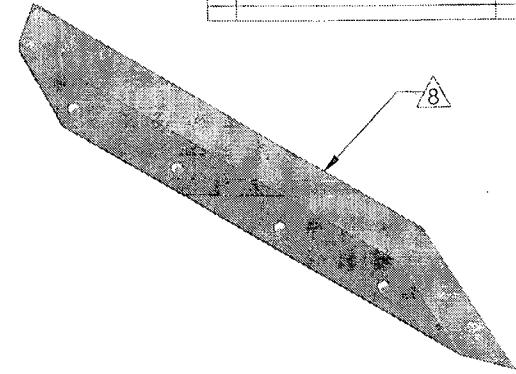


646.3315

APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
UPPER CUTTER ASSY	
DRAWING NO. 646.3315 DATE 07/26/00 SCALE NONE SHEET 7 OF 8	PART NO. 646.3300 REV. N/C

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REVISION		DATE	APPROVED
REV	DESCRIPTION		



646.3316

EXISTING PART DATE: 08-20-00 DRAWN BY: J. HAYES CHECKED BY: J. HAYES DRAWING APPROVAL DATE: 08-20-00 CONTROL CENTER		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056 3512 (760) 724-5300	
PARTS: 00000000000000000000 DIMENSIONS AND MATERIALS POLYMER: 000 TYPICAL DIMENSIONS: 000 PARTS: 00000000000000000000		PART: 00000000000000000000 DIM: 00000000000000000000 646.3300	REV: 00000000000000000000 M/C: 00000000000000000000
SCALE: NONE		SHEET: 8 OF 8	